REMARKS

Applicants respectfully traverse and request reconsideration.

Claims 1-5, 7-15 and 18-19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,268,874 (Niu et. al). The Niu reference is directed to a state parser for a multi-stage graphics pipeline that employs tokens and duplicate shadow stage buffers that are in parallel and duplicative of working stage buffers. State tokens are added at the end of the group of state data and at the beginning of state data. The Applicants noted in their "Background of the Invention" section, that the use of such shadow stages or duplicative parallel state buffers effectively doubles the cost and the real estate taken up by such buffers and such may be undesirable. The Applicants claim a completely different structure and operation.

In contrast, Applicants claim, such as noted in Claims 1, 5, 13 and 16, that the state buffer is a non-duplicative state data buffer that stores N sets of state data. An additional set of state data is not stored in the non-duplicative state buffer when a number of sets of state data equals the maximum number of allowed states. As such a single buffer structure may be used which avoids the need for the shadow stage buffers of Niu, or duplicative, state buffer stages described in the cited reference. (see for example, specification page 5, lines 1-9). As such these claims are believed to be in condition for allowance.

As to Claims 2 and 14, these claims are also believed to be allowable and once again the cited portion of the reference deals with shadow stage 412 but Applicants claimed not that the structure do not employ the shadow stage as taught in the cited reference. Accordingly, these claims are also believed to be in condition for allowance.

As to Claims 3 and 15 and 4, Applicants again respectfully reassert the relevant remarks made above and also respectively submit that these claims also add additional novel and non-obvious subject matter.

As to Claim 7, 18 and 19, Applicants respectfully reassert remarks made above and respectfully submit that these claims are also in condition for allowance.

With regards to Claims 9, 10, 11 and 12, Applicants again respectfully reassert that these claims add additional novel and non-obvious subject matter, and are also allowable as depending from an allowable base claim. For example, Claim 9, requires sending a flush command to the graphics processor that causes the graphics processor to refuse the additional set of state data in the non-duplicative state data buffer. Such control is not contemplated or taught by the cited reference. Accordingly this claim is also believed to be in condition for allowance.

Claims 6 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Niu et. al in view of admitted prior art. Applicants respectfully submit that the Niu reference actually teaches away from Applicants claimed invention. As noted above, the Niu reference teaches using a parallel duplicative shadow buffer structure that are parallel to the working state buffers and which can double the cost of the buffer structure. In addition a given set of state data may fail to occupy the entire buffer. In fact there would no need for a ring buffer in the Niu reference since it would be repetitive to the buffer structure already present therein. A ring buffer would appear render the duplicate shadow buffers unusable. As such these claims are believed to be in condition for allowance.

Also, there does not appear that there is any motivation other than Applicants own claims to combine such teachings as there is nothing in the Niu reference which would teach one skilled in the art to completely decimate the structure described in Niu for some other structure. Accordingly, Applicants respectfully submit that the claims are in condition for allowance.

As to new Claim 20, Applicants respectfully submit the relevant remarks made above and again note that the rinks buffer structure allows a user occupation of an entire buffer which may be populated as it is being wreck from and is a completely different structure from the parallel and duplicative set of shadow buffers described in the cited reference. Accordingly this claim is also believed to be in condition for allowance.

Accordingly, Applicants respectfully submit that the claims are in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited

to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

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